

**4 AXIS CNC VERTICAL BORER
WITH LIVE TOOLING AND
PALLET CHANGER**



Make : *BERTHIEZ*
Type : *TVM 2000/160 F2*
Year : *2006*
CNC unit : *NUM AXIUM POWER*

HP COOLANT 350 BAR

Specifications :

Capacities :

<i>Chuck diameter</i>	<i>1 600 mm</i>
<i>Max. turning diameter</i>	<i>2 000 mm</i>
<i>Diameter of 2 pallets</i>	<i>1 600 mm</i>
<i>Turning height</i>	<i>1 000 mm</i>
<i>Horizontal stroke of saddle, X axis</i>	<i>- 1 050 / + 2 500 mm</i>
<i>Vertical stroke ram, Z axis</i>	<i>1 230 mm</i>
<i>Ram section</i>	<i>210 x 240 mm</i>
<i>Min. bore diameter</i>	<i>330 mm</i>
<i>Positioning device of tool holders</i>	<i>BERTHIEZ device</i>
<i>Tool type for turning and milling</i>	<i>CAPTO C8</i>
<i>Max. load on pallet</i>	<i>4 000 kg</i>

Performances :

<i>Chuck motor power, S6</i>	<i>92 kW</i>
<i>Milling spindle power</i>	<i>25 kW</i>
<i>Chuck torque</i>	<i>36 000 Nm</i>
<i>Max. milling spindle torque (low and high range)</i>	<i>880 / 325 Nm</i>
<i>Max. turning torque</i>	<i>60 000 Nm</i>

Speeds and feed rates :

<i>Max. chuck speeds (2 ranges)</i>	<i>350 RPM</i>
<i>Max. milling spindle speeds (2 ranges)</i>	<i>25 - 3 000 RPM</i>
<i>Feed rates X and Z axis</i>	<i>0 - 16 000 mm/min</i>

Weight :

<i>Machine weight</i>	<i>45 T</i>
<i>Number of levelling jacks</i>	<i>12</i>

Coolant :

Coolant device	2 000 l
Coolant pressure in low pressure for turning	10 bar
Coolant flow in low pressure for turning	40 l/min
Coolant pressure in low pressure for milling	35 bar
Coolant flow in low pressure for milling	20 l/min
Coolant pressure in high pressure for turning	70 to 350 bar
Coolant flow in high pressure for turning	34 l/min
Coolant for turning	thru-spindle
Coolant for milling	external

Electrical equipments :

Tension	400 V
Frequency	50 Hz
Power	210 KVA

Equipped with :

C axis - 360 000 positions
Automatic pallet changer ROTOMORS (2 pallets)
RENISHAW tool and part probing
High pressure coolant 350 bar
120 ATC for CAPTO C8 turning and milling tools (tool holders are changed in horizontal and vertical positions)
Live spindle 3 000 RPM
Swarf conveyor
Lot of ISCAR tool holders

These specifications are given in good faith and are correct to the best of our knowledge. Details are not binding.